

STATUS OF THE CLAIMS

The status of the claims of the present application stands as follows:

1. **(Original)** A controlled phase locked loop system, comprising:
 - a) an oscillator responsive to a control parameter;
 - b) a measurement device for measuring said control parameter and outputting a comparison indicator; and
 - c) a controller operatively connected to said oscillator and said measurement device and adapted for receiving a plurality of operating parameters and adapting the controlled phase lock loop system as a function of said operating parameters and/or comparison indicator to substantially center said control parameter to a pre-selected value.
2. **(Original)** A controlled phase locked loop system according to claim 1, wherein said plurality of operating parameters includes environmental parameters.
3. **(Original)** A controlled phase locked loop system according to claim 1, wherein said oscillator has a topology and said controller dynamically changes said topology.
4. **(Original)** A controlled phase locked loop system according to claim 3, wherein said oscillator is a multi-stage oscillator having a plurality of stage modes and said controller changes the topology at least in part by changing said oscillator among said plurality of stage modes.
5. **(Original)** A controlled phase locked loop system according to claim 1, further comprising a power-on-reset history buffer for storing a subset of said plurality of operating parameters, said controller utilizing said subset during a warm start.
6. **(Original)** A controlled phase locked loop system according to claim 1, further comprising a loop filter responsive to said controller.
7. **(Original)** A controlled phase locked loop system according to claim 1, further comprising a charge pump responsive to said controller.

8. **(Original)** A controlled phase locked loop system according to claim 1, wherein said oscillator is a voltage controlled oscillator and said control parameter is voltage.
9. **(Original)** A controlled phase locked loop system according to claim 1, further comprising at least one of an input divider, an output divider and a feedback divider each responsive to said controller.
10. **(Currently amended)** A method of controlling a phase locked loop having a setup, a topology and an oscillator controlled using a control parameter, the phase locked loop operable at a plurality of target frequencies, comprising the steps of:
 - a) ~~varying the setup of the phase locked loop as a function of a plurality of operating parameters so as to adjust the topology to achieve a desirable topology for each of the plurality of target frequencies; and~~
said desirable topology substantially centering the control parameter to a pre-selected value.
11. **(Original)** A method according to claim 10, wherein the oscillator is responsive to a loop filter, the method further comprising the step of controlling the loop filter as a function of said plurality of operating parameters.
12. **(Original)** A method according to claim 10, wherein said plurality of operating parameters includes environmental parameters, the method further comprising, prior to step a, the step of collecting said environmental parameters.
13. **(Original)** A method according to claim 10, wherein step a includes reading at least some of said plurality of parameters from a power-on-reset history buffer.
14. **(Original)** A method according to claim 10, wherein step b includes measuring the control parameter and then comparing the control parameter to said pre-selected value.
15. **(Currently amended)** An electronic device, comprising:
 - a) at least one semiconductor chip containing a controlled phase locked loop system that includes an oscillator responsive to a control parameter and at least a portion of a control system adapted for controlling said oscillator at each of a plurality of target frequencies, said control system comprising:

- i) a plurality of sources for providing a plurality of operating parameters; and
- ii) at least one state machine operatively connected to said plurality of sources, said at least one state machine adapted for substantially re-centering said control parameter relative to each of said plurality of target frequencies as a function of said plurality of operating parameters.

16. **(Original)** An electronic device according to claim 15, further comprising a measuring device adapted for comparing said control parameter to a pre-selected value, said measuring device operatively providing a comparison indicator to said at least one state machine adapted for substantially centering said control parameter as a function of said comparison indicator.
17. **(Original)** An electronic device according to claim 15, wherein said semiconductor device further comprises a loop filter operatively connected to said oscillator and a comparator operatively connected between said loop filter and said at least one state machine for use in substantially centering said control parameter.
18. **(Original)** An electronic device according to claim 15, wherein said controlled oscillator system has a topology and said at least one state machine dynamically changed said topology so as to substantially center said control parameter.
19. **(Original)** An electronic device according to claim 18; wherein said oscillator is a multi-stage oscillator having a plurality of stage modes and said at least one state machine changes said topology at least in part by changing said oscillator among said plurality of stage modes.
20. **(Original)** An electronic device according to claim 15, further comprising a power-on-reset history buffer for storing a subset of said plurality of operating parameters, said at least one state machine utilizing said subset during a warm start to substantially center said control parameter.

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